LENS DRIVE APPARATUS

ABSTRACT

A front lens group 1 and a rear lens group 2 having a diameter of about 5 mm held inside a cylindrical body 5 are capable of movement in the forward and backward directions via a front group movable body 3 and a rear group movable body 4, respectively. An image taking element such as a CCD is arranged at a prescribed position behind the cylindrical body. By setting the distance from each lens group to the CCD and the distance between both lens groups, an image is formed at a prescribed zoom on the CCD. From the 1x base state when the zoom magnification is made $\alpha x \rightarrow \beta x \rightarrow \gamma x$, the positional relationship between the front lens group and the rear lens group becomes as shown in Fig. 1(b) ~ (d). The two kinds of zoom magnification 1x and βx can be switched by fixing the front lens group and moving only the rear lens group back and forth between positions.